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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,013	01/08/2001	Jean M. Beaupre	13904	7092

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EXAMINER	
ODLAND, KATHRYN P	

ART UNIT	PAPER NUMBER
3743	

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/757,013	BEAUPRE, JEAN M.	
	Examiner	Art Unit	
	Kathryn Odland	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This is a response to the amendment dated February 5, 2004. The amendments to the abstract are acknowledged.

Response to Arguments

1. Applicant's arguments filed February 5, 2004 have been fully considered but they are not persuasive.

Applicant argues the combination of Hood and Alexander is improper because the references are non-analogous and there is no reasonable expectation of success from the combination. However, applicant's attention is directed to the current application specification, which is directed to reducing manufacturing costs and material waste. Pages 3 and 4 of the current application specification emphasize, "The present invention uses sheet stock instead of billet or rod stock to fabricate ultrasonic waveguides, and results in, reduced material waste, fewer manufacturing operations, reduced piece cost (one time die cost), a potential high degree of axial symmetry with or without planar symmetry, can produce complex internal structures, uses thinner sheet stock than single layer devices which reduces tooling costs, provides an ability to add additional laminate layers or even blade tips to modify designs to meet market needs, and provides a possible integrated connection feature and method." Further, page 4 recites, "However, it should be realized that the laminated ultrasonic waveguides of the present invention could also be used in many other diverse applications." Again, applicant's entire invention is directed to solving a manufacturing problem rather than to

improve the operation of an ultrasonic blade-cutting device. Therefore, the argument of non-analogous art is erroneous, since if one of ordinary skill in the art were to consider manufacturing efficiency one would necessarily be directed to Alexander who clearly teaches a laminated cutting blade to reduce manufacturing costs. Column 1 of Alexander states, "The principle objectives of this invention are: First to provide a hand operated power driven reciprocating saw in which the point or area of wear between the saw blade and the saw backing occurs on the saw blade which is readily replaceable. Second, to provide a reciprocal saw blade and thin saw backing plate having a tongue and groove slidingly engagement and in which the tongue and groove connection is easily and ***inexpensively formed by laminating the blade***. Third, to provide a saw blade for a reciprocating saw that is ***inexpensive to manufacture and which is efficient*** in its cutting action." This objective is not unlike that stated applicant. Applicant does not focus on how the lamination enhances operation. The teaching of Alexander is for a reciprocating blade, and it is not unlike applicant's blade in the sense that there is motion translated. Moreover, given the objective to improve manufacturing, the combination is valid and there is reasonable expectation for success for one with ordinary skill in the art.

2. In response to applicant's argument that Alexander is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this

case, one of ordinary skill in the art would necessarily be directed to Alexander who clearly teaches a laminated cutting blade to reduce manufacturing costs where efficiency of manufacturing is a common goal. Further, the "field of blades" is common to both applicant and Alexander.

Thus, applicant has failed to define over the prior art rejection, which is reiterated below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hood in US Patent No. 5,935,143 in view of Alexander in US Patent No. 2,784,751.

Hood teach a blade that is an ultrasonic waveguide (26) for transferring ultrasonic acoustic energy along a longitudinal axis of the ultrasonic waveguide, as recited in column 5, lines 55-67; an ultrasonic waveguide in an ultrasonic surgical instrument having an active tip end-effector which is placed in contact with tissue of a patient to couple ultrasonic energy transferred along the laminated ultrasonic waveguide to the tissue, as recited in column 2; and a connector (54) at a proximal end of the ultrasonic waveguide to transfer ultrasonic energy to the laminated ultrasonic waveguide, as recited in columns 8 and 9 and seen in figures 9-11.

However, Hood does not explicitly recite a laminated ultrasonic waveguide having at least two stamped pieces of sheet stock which are laminated together to form a laminated ultrasonic waveguide; at least two of the stamped pieces of sheet stock are stamped to form at least one channel extending along the length of the blade; a first outer, second inner and third outer stamped pieces of sheet stock which are laminated together; first and third outer laminated pieces of sheet stock that extend for a portion of the length of the blade and the second inner laminated piece of sheet stock extends for at least a portion of the length of the blade; first and second stamped half pieces of sheet stock which are laminated together, wherein each of the stamped first and second half pieces of sheet stock defines half of a cylindrical connector at a proximal end of the laminated ultrasonic waveguide; threads stamped into an interior surface of each half cylindrical connector, such that the first and second half pieces define a cylindrical connector having threads on the interior surface thereof for providing a threaded connector to the laminated ultrasonic waveguide; a distal portion of each of the stamped pieces of sheet stock has a longitudinal rib stamped therein extending along the longitudinal axis of the laminated ultrasonic waveguide to provide lateral stiffness for the laminated ultrasonic waveguide; a second inner laminated piece of sheet stock that extend to a distal active tip end of the laminated ultrasonic waveguide; a second inner laminated piece forms an end-effector at the distal end of the ultrasonic laminated waveguide; a piece of sheet stock that is mounted and secured to longitudinally extending slots in an outer

circumference of a separate threaded connector; or a method of fabricating a laminated blade via stamping and forming at least two stamped pieces of sheet stock to form parts of the body and laminating together the at least two stamped pieces of sheet stock to form the body of the blade.

On the other hand, Alexander teach a laminated blade having at least two stamped pieces of sheet stock (20 and 21) which are laminated together to form a laminated blade, as recited in column 2, lines 14-50 and seen in figures 2 and 4; at least two of the stamped pieces of sheet stock are stamped to form at least one channel (24) extending along the length of the blade; a first outer, second inner and third outer stamped pieces (20 and 21) of sheet stock which are laminated together; first and third outer laminated pieces of sheet stock that extend for a portion of the length of the blade and the second inner laminated piece of sheet stock extends for at least a portion of the length of the blade, as seen in figure 2; and a method of fabricating a laminated blade via stamping and forming at least two stamped pieces of sheet stock to form parts of the body and laminating together the at least two stamped pieces of sheet stock to form the body of the blade, as recited in column 2, lines 14-50.

Therefore, it would be obvious to one with ordinary skill in the art to modify the invention of Hood to include an ultrasonic waveguide having at least two stamped pieces of sheet stock which are laminated together to form a laminated ultrasonic waveguide where at least two of the stamped pieces of sheet stock are stamped to form at least one channel extending along the length of the blade; a

first outer, second inner and third outer stamped pieces of sheet stock which are laminated together; and first and third outer laminated pieces of sheet stock that extend for a portion of the length of the blade and the second inner laminated piece of sheet stock extends for at least a portion of the length of the blade, as taught by Alexander, for the purpose of ease of manufacture and reduction in cost, as recited in column 1, lines 25-30 of Alexander. The blade of Alexander is for a reciprocating saw where vibrations are expected. Therefore, it is within the scope of the invention to incorporate the teachings for a blade in an ultrasonic waveguide. Further, this modification would yield first and second stamped half pieces of sheet stock which are laminated together, wherein each of the stamped first and second half pieces of sheet stock defines half of a cylindrical connector at a proximal end of the laminated ultrasonic waveguide to be incorporated in the connector of Hood; and threads stamped into an interior surface of each half cylindrical connector, such that the first and second half pieces define a cylindrical connector having threads on the interior surface thereof for providing a threaded connector to the laminated ultrasonic waveguide.

Moreover, it would be obvious to include at a distal portion of each of the stamped pieces of sheet stock, a longitudinal rib stamped therein extending along the longitudinal axis of the laminated ultrasonic waveguide to provide lateral stiffness for the laminated ultrasonic waveguide since the modification to the ultrasonic waveguide would necessarily require more stability. Also, a piece of sheet stock that is mounted and secured to longitudinally extending slots in an

outer circumference of a separate threaded connector and the method of fabricating a laminated blade via stamping and forming at least two stamped pieces of sheet stock to form parts of the body and laminating together the at least two stamped pieces of sheet stock to form the body of the blade also fall within the scope of the invention and would be obvious to one with ordinary skill in the art.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathryn Odland whose telephone number is (703) 306-3454. The examiner can normally be reached on M-F (7:30-5:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A Bennett can be reached on (703) 308-0101. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KO

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